

## **Miller, Walker, and Salmon Basin Plan Project Management Team Meeting**

Date: Thursday November 13, 2003

Time: 9:00AM – 12:00PM

Location: City of Burien Public Works Conference Room

### **Meeting Summary**

#### ***Attendees***

Dan Bath	City of Burien
Bruce Bennett	King County
Steve Bennett	City of Normandy Park
Curt Crawford	King County
Roger Kuykendall	Gray & Osborne (for the City of Normandy Park)
Mehrdad Moini	WSDOT
Dale Schroeder	City of SeaTac
Bob Duffner	Port of Seattle
Julie Cairn	King County

#### ***Announcements and Approval of 10/30/03 Meeting Summary***

Based on the meeting summary, there was some discussion about where localized flooding occurred (Miller or Walker), and whether the residences had living spaces or non-living spaces flooded. It was clarified that the flooding occurred on Miller Creek, not on Walker Creek as originally reflected in the minutes. This will be corrected. The extent of residential flooding is being confirmed by Steve Bennett, for clarification in the meeting minutes as well.

If the October 20 storm caused flooding of living spaces, and it was less than a 100 year runoff event (as opposed to the precipitation event – we already know it was more than a 100-year rain), that would indicate that a higher level of detention is needed in the basin. King County gauging data for these creeks from the October 20<sup>th</sup> storm is not yet available.

When we look at Creek flows from the 10/20 storm, we should be aware that the Port's Miller Creek Regional Detention Facility and their other facilities were NOT releasing any flows. They were all infiltrating.

Normandy Park reported that the 1<sup>st</sup> Avenue South culvert is being replaced with a 60" culvert following the October 20 storm. This repair was underway before the storm, but the storm exacerbated the conditions, and created more damage. Normandy Park got emergency funding and approval to increase the scope of the repair. The replacement

**Action items are highlighted**

should be completed by November 21<sup>st</sup>, and the repair will require several road closures of 8 hours to 72 hours.

### ***Discussion of Most Recent Walker Creek Modeling Results***

Bruce handed out flow frequency graphs for Walker Creek at the mouth and at Des Moines Memorial Drive (@DMMD). Several modeling scenarios were included on each of these graphs.

The graph @DMMD represents the drainage subbasin including the Port property. This subbasin has a lot more till soil than any other subbasin in the Walker basin. This means that there is not as much infiltration possible in this subbasin. This is not the case for the remainder of the Walker Creek basin, which predominantly has outwash soils.

The graph @DMMD indicates that the requirement for Level 2 detention (75/15/10 predevelopment condition) is appropriate for the Port, and required to reduce flows below current levels in this subbasin. Again, this is the case because the Port property does not infiltrate well because of the till soils.

The flows in this subbasin are reduced even further with the non-Port properties having a Level 1 detention standard applied (in addition to the Port providing Level 2 detention). There is no additional reduction in flows in this subbasin if the non-Port properties were to apply Level 2 detention (again in addition to the Port providing Level 2 detention).

The graph at the mouth indicates that in order to reduce flows in the basin to below current, one of the following flow standards would need to be applied - Level 1 detention for all; Port Level 2 (75/15/10) and Level 1 for everyone else; or Level 2 detention for all (75/15/10). Each of these three options results in very similar flows.

Note: the basin wide goal/flow line representing a 10% impervious area, is significantly lower than what can be achieved with either detention standard. This is true at the mouth and @DMMD.

#### **Regulatory Options:**

Level 2 (75/15/10) for properties on till soil (which are primarily the Port properties) and Level 1 for properties on outwash soil (which is most of the Walker Creek basin)

OR

Level 2 (75/15/10) for the entire Walker Creek basin, regardless of soil type

#### **Considerations:**

If we were to recommend a mix of Level 1 and Level 2, we would want to make sure that the regulations specify that infiltration is required. The current KC manual points you in that direction, but it does not require it.

On the other hand, if we require Level 2 detention basin wide, this would, in essence, require the builder or agency to implement infiltration on outwash soils, in order to

**Action items are highlighted**

achieve a zero release rate. This would accomplish the desire to maximize infiltration in the basin and achieve the desired flow reductions without having different flow control standards in the same basin, which could be confusing.

Water quality treatment requirements might be a concern though, in high infiltration areas (there would need to be enough treatment provided).

Notes on Current Standards in Use:

Normandy Park's 1980 code has no development thresholds for requiring detention/infiltration requirements to remodels. Any remodels are subject to these requirements. Gray & Osborne is currently rewriting this code.

**Roger Kuykendall will send Bruce the current Normandy Park drainage regulations.**

The current King County manual has a drainage review threshold of 5,000 SF of new impervious. This will be reduced to 2,000 SF in the new manual (to be consistent with Ecology's manual). A facility exemption exists for 10,000 SF in the current manual, and it is expected to remain in the updated manual.

SeaTac and Burien are using the current King County manual.

Based on this information and extensive discussions, the PMT members agreed that the recommended detention standard of Level 2 (75/15/10) for the entire Walker Creek basin is appropriate.

***Miller Creek Detention Standard Recommendation (carried over from last meeting summary for reference)***

After further discussion about the graphs and the cost spreadsheet, the PMT agreed that the basin-wide flow goal representing a 10% impervious basin is appropriate for the Miller Creek Basin. This is the line shown as GOAL on the graphs.

The PMT further agreed that the appropriate regulatory flow control detention standard for Miller Creek is Level 2 with a pre-development condition of 75/15/10.

***Salmon Creek Detention Standard Recommendation (carried over from last meeting summary for reference)***

Based on earlier data reviews and discussions, the PMT confirmed at this meeting that the basin wide flow goal representing a 10% impervious basin is appropriate for the Salmon Creek Basin.

The PMT further agreed that the appropriate regulatory flow control detention standard for Salmon Creek is Level 1. This flow control standard can be implemented to meet the basin wide flow goal, because of the existence of the bypass line.

**Action items are highlighted**

The maintenance and upkeep of the bypass line are critical to this recommendation. Additional basin plan recommendations for the Salmon basin will focus on addressing habitat and water quality issues, which are significant.

### ***Further Analysis of “Red Parcels”***

Red parcels are those identified as likely to be redeveloped in the next 20 years based on the ratio of improved value to land value, where the improved value is less than the land value. In characterizing these red parcels, a question arose as to what portion of these might be exempt from redevelopment drainage requirements based on size thresholds.

A histogram of the red parcel sizes (in square feet) was presented to the PMT.

If 10,000 SF is used as a threshold for exempting drainage facilities on redevelopment, you see the following frequency:

86% of the red parcels in the Salmon basin are 10,000 SF or less

82% of the red parcels in the Miller basin are 10,000 SF or less

74% of the red parcels in the Walker basin are 10,000 SF or less

In looking at the assumptions surrounding the red parcels, there are factors that overestimate the effects of the detention standards, and there are factors that underestimate the effects of the detention standards. They are:

Factors that overestimate the effects of the detention standards	Factors that underestimate the effects of the detention standards
<ul style="list-style-type: none"><li>• Parcels under 10,000 SF are exempt from the facility requirement (but infiltration might still be required).</li><li>• Parcels may take longer than 20 years to redevelop.</li></ul>	<ul style="list-style-type: none"><li>• The use of a 1:1 ratio (improvement to land value) might underestimate the number of parcels likely to redevelop in the next 20 years.</li><li>• Several adjacent small parcels might be in single ownership, and combined for redevelopment.</li></ul>

After discussing this further, the PMT acknowledged the limitations of the assumptions used, but agreed it does not make sense to do additional model runs to investigate the sensitivity of these assumptions (lot size distribution, ownership patterns, different ratios of improvement to land value).

**Post Meeting Note: Future Analysis of Parcel Data will focus on area of parcels rather than count of parcels. Areas and relative areas are more meaningful ways to look at the information.**

**Action items are highlighted**

### ***Funding Sources and SWM Fee Discussions***

Bruce asked PMT members from the City of Normandy Park, the City of SeaTac, and the City of Burien, as well as King County staff, to provide information on the number of SWM Fee accounts in each basin in each jurisdiction. He also asked about the current charges for SWM (or similar) fees. The purpose of this analysis is to look at the potential cost impacts if projects in a basin were to be funded through an existing surface water management fee-type program. What would the cost impacts look like to a single owner or account. Projects might include capital projects or they might include maintenance projects.

A General Facility Charge (GFC) is another potential type of funding source for parcels making improvements (a fee in lieu of, or in addition to on-site requirements).

Normandy Park does not currently have a SWM-type fee, but they are probably about to adopt one.

Normandy Park has 3,000 – 4,000 ERUs (equivalent residential units); and 2,000 – 2,500 parcels.

### ***Plan Content***

It was noted that we should be sure to include details in the plan(s) on how we will measure progress during the planning horizon.

### ***Project Cost and Feasibility Discussion***

Bruce handed out a document with project costs and feasibility for each of the three basins. For each basin, flow control, water quality, and habitat projects were identified (one-time and maintenance), as well as the potential timing for implementation, project feasibility, and ROUGH estimates of potential costs.

During the discussion, there were several comments and clarifications of the handout material. **These edits are shown in the related attachment.**

PMT members also suggested that the scope of this information be expanded to include the benefits of the various projects.

**Dan Bath will look for City of Burien costs of feasibility information from City Light property, and send it to Bruce Bennett.**

Estuary Projects – can we break down the scope of estuary improvements to smaller, more likely acceptable (by the property owners) projects?

Note: There are no stream habitat improvements included in the project list. They could be added, but the success and value of these projects are uncertain. There may be other reasons to add them, though; for example, it might be a good way to involve the community in stream stewardship.

Ecology projects generally have three areas of consideration:

1. estuary (improvements or establishment)

**Action items are highlighted**

2. riparian corridor (property acquisitions or conservation easements, removal of invasives, native plantings)
3. in-stream conditions (large woody debris, gravel, channel complexity)

At the last PMT meeting, a question came up about whether a dramatic reduction in flows from the construction of a regional detention facility would be detrimental to the system from a geologic or ecological standpoint. Based on discussions with King County staff, this is not a fatal flaw in these basins. The changes in flow are likely to occur over an extended period of time and would not be detrimental.

### ***Timing of Next Round of Public Meetings***

The PMT decided to postpone the Public Meetings tentatively scheduled for December 4 and December 11. This will be rescheduled in early/mid January 2004. The PMT also decided to cancel the Executive Committee meeting on 11/20 and make it a PMT only meeting. This meeting will be cancelled altogether if there is not enough new information to discuss. This will be at Bruce's discretion.

### ***Upcoming Meetings***

11/20 **PMT ONLY** (9AM – Noon in City Manager's Conference Room) **WAS Executive/PMT Joint Meeting**

11/27 HOLIDAY



12/4 PMT (9AM – Noon in City Manager's Conference Room)

12/4 and 12/11 **Public Meetings postponed until January**

12/11 **Proposed additional PMT Meeting**

12/18 **Proposed additional PMT Meeting**

### ***Related Attachments***

Project Costs and Feasibility Document with edits from the 11/13 Meeting.	 "Project Costs and Feasibility Post 1113C"
10/30/03 PMT Meeting Summary	 "103003 PMT Meeting Summary.do"

Action items are highlighted

**Salmon Creek Project Costs and Feasibility**  
with notes from 11/13/03 PMT Meeting  
with corrections on 11/20/03

<u>Salmon Creek Projects</u>	<b>When Implemented</b>	<b>Feasibility</b>	<u>Benefits</u>	<u>Once (1) or Annual (A)</u>	<u>ROUGH Cost</u>
<i>Flow Control – Level 1</i>					
Assess condition of by-pass	Immediate (5 yr)	High		<u>1</u>	1,000
Repair by-pass outfall	Immediate (5 yr)	High		<u>1</u>	30,000
Flow, <u>WQ, and Habitat</u> monitoring	Immediate (5 yr)	High		<u>A</u>	50,000
Sub-total					31,000 one-time; 50,000/yr
<i>Water Quality</i>					
Wetland system (White Center, Mallard, Hicks)	Immediate (5 yr)	High		<u>1</u>	650,000 <sup>1</sup>
Stewardship – <u>WQ &amp; Habitat</u>	Immediate (5 yr)	High		<u>A</u>	50,000
WQ monitoring	Immediate (5 yr)	High		<u>A</u>	Included <u>above</u>
<u>need WQ regulatory standard</u>					
Sub-total					650,000 one-time; 50,000/yr

<sup>1</sup> Includes property purchase, detention, control structure modifications, WQ treatment facility (may or may not include Lake Hicks in-lake work. Without property purchase, the cost is much lower. Per Don Althausen.

<u>Salmon Creek Projects</u>	When Implemented	Feasibility	<u>Benefits</u>	<u>Once (1) or Annual (A)</u>	<u>ROUGH Cost</u>
<i>Habitat</i>					
Estuary restoration <sup>2</sup>	Planning horizon (20 yr)	Low		<u>1</u>	4,000,000
Culvert retrofit <sup>3</sup>	Immediate (5 yr)	High		<u>1</u>	75,000
<u>Remove barrier at the mouth</u>					
<u>Conservation easement</u>					
Stewardship	Immediate (5 yr)	High		<u>A</u>	Included <u>above</u>
Habitat monitoring	Immediate (5 yr)	High		<u>A</u>	Included <u>above</u>
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Sub-total					4,075,000 one-time
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Grand total					4,756,000 one-time; 100,000/yr

<sup>2</sup> The estuary work might help fish return, but the numbers will still be low. This will never be a highly productive system.

<sup>3</sup> The scope is to add baffles



## Miller Creek Project Costs and Feasibility

<u>Miller Creek Projects</u>	<b>When Implemented</b>	<b>Feasibility</b>	<u>Benefits</u>	<u>Once (1) or Annual (A)</u>	<u>ROUGH Cost</u>
<i>Flow Control – Level 2 (75/15/10)</i>					
Miller Creek Regional Detention Facility <sup>4</sup>	Immediate (5 yr)	?		<u>1</u>	500,000
City Light Property/ <u>Kennedy High School</u>	Planning horizon (20 yr)	?		<u>1</u>	500,000 <sup>5</sup>
Flow, <u>WQ, &amp; Habitat Monitoring</u>	Immediate (5 yr)	High		<u>A</u>	75,000
Sub-total					1,000,000 one-time; 75,000/yr
<i>Water Quality</i>					
<u>City Light/Kennedy HS Property<sup>6</sup></u>					
<u>In channel from Arbor Lake down along SR509</u>					
<u>Guardrail treatment or replacement in specific identified areas impacting the system</u>					
<u>Filtration embankment along the road (like noted elsewhere)</u>					
Ambaum expansion	Immediate (5 yr)	High		<u>1</u>	500,000
<sup>4</sup> Are we taking full advantage of this facility? Can operations be optimized?					
<sup>5</sup> 300,000 is property acquisition					
<sup>6</sup> The City of Burien might have some more refined cost or feasibility information on this potential project					

<u>Miller Creek Projects</u>	<u>When Implemented</u>	<u>Feasibility</u>	<u>Benefits</u>	<u>Once (1) or Annual (A)</u>	<u>ROUGH Cost</u>
Hermes expansion	Planning horizon (20 yr)	High		<u>1</u>	2,000,000 <sup>7</sup>
Stewardship – <u>WQ &amp; Habitat</u>	Immediate (5 yr)	High		<u>A</u>	50,000
WQ monitoring	Immediate (5 yr)	High		<u>A</u>	Included
<u>need WQ regulatory standard</u>					
Sub-total					2,500,000 one-time; 50,000/yr
<hr/>					
<i>Habitat</i>					
Estuary restoration <sup>8</sup>	Planning horizon (20 yr)	Low		<u>1</u>	2,000,000
Culvert retrofit <u>at 1<sup>st</sup> Avenue South</u> <sup>9</sup>	Immediate (5 yr)	High		<u>1</u>	90,000
<u>Channel improvements from Arbor Lake down along SR509</u>					
Stewardship	Immediate (5 yr)	High		<u>A</u>	Included
Habitat monitoring	Immediate (5 yr)	High		<u>A</u>	Included
<hr/>					
Sub-total					2,090,000 one-time
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Grand total					5,590,000 one-time; 125,000/yr

<sup>7</sup> Cost from CH2M Hill report

<sup>8</sup> If we don't do the Estuary restoration but we do other things, we're not likely to get thousands of fish. If we do the estuary work AND the other things, we might see thousands of fish!

<sup>9</sup> Could this be done in conjunction with any work at Ambaum Pond?

**Walker Creek Project Costs and Feasibility**  
**Most Walker Creek Costs are included above under Miller Creek**

<u><b>Walker Projects</b></u>	<b>When Implemented</b>	<b>Feasibility</b>	<u><b>Benefits</b></u>	<u><b>Once (1) or Annual (A)</b></u>	<u><b>ROUGH Cost</b></u>
<i>Flow Control</i> Flow monitoring	Immediate (5 yr)	High		<u>A</u>	Included in Miller
<hr/>					
Sub-total					0
<hr/>					
<i>Water Quality</i> Stewardship	Immediate (5 yr)	High		<u>A</u>	Included in Miller
WQ monitoring	Immediate (5 yr)	High		<u>A</u>	Included in Miller
<hr/>					
<u>need WQ regulatory standard</u>					
Sub-total					0
<hr/>					
<i>Habitat</i> Estuary restoration <sup>10</sup>	Planning horizon (20 yr)	Low		<u>1</u>	Included in Miller
<u>Headwater</u> Wetland purchase and restoration	Planning horizon (20 yr)	High		<u>1</u>	400,000
Stewardship	Immediate (5 yr)	High		<u>A</u>	Included
Habitat monitoring	Immediate (5 yr)	High		<u>A</u>	Included

<sup>10</sup> If we don't do the Estuary restoration but we do other things, we're not likely to get thousands of fish. If we do the estuary work AND the other things, we might see thousands of fish!

<u>Walker Projects</u>	When Implemented	Feasibility	<u>Benefits</u>	<u>Once (1) or Annual (A)</u>	<u>ROUGH</u> Cost
Sub-total					400,000 one-time
Grand total					400,000 one-time

## **Miller, Walker, and Salmon Basin Plan Project Management Team Meeting**

Date: Thursday October 30, 2003

Time: 9:00AM – 12:00PM

Location: City of Burien City Manager's Conference Room

### **Meeting Summary**

#### ***Attendees***

Dan Bath	City of Burien
Bruce Bennett	King County
Steve Bennett	City of Normandy Park
Steve Clark	City of Burien
Curt Crawford	King County
Roger Kuykendall	Gray & Osborne (for the City of Normandy Park)
Mehrdad Moini	WSDOT
Dale Schroeder	City of SeaTac
Bob Duffner	Port of Seattle
Julie Cairn	King County

#### ***Storm Report from Last Week***

Last week's storm was well over a 100-year event. How did Miller, Walker, and Salmon Creeks do, as well as any facilities in these basins?

In general, pretty well. The ground was generally pretty spongy in the region before last week's storm, so there was a fair amount of infiltration during and following the event. This would not be expected to be the case if this storm had come in January.

Hopefully the State Emergency Declaration will be able to include King County even though it was not specifically named, in order to provide funding sources to help with repairs.

#### ***Miller Creek***

Ambaum Regional Detention Facility overtopped and flooded 1<sup>st</sup> Avenue South with about 6 inches of water over the roadway, necessitating its closure. There was some flooding on Miller Creek, near the Community Club that resulted in the living space of at least one residence being inundated.

Action items are highlighted

Finalized 11/18/03

The infiltration facilities at the SW 142<sup>nd</sup> St. depression overtopped during the event and a limited area was flooded with about 6 to 8 inches of water. There was no reported flooding at the Hermes depression, although there was some localized flooding at the Hermes outfall along 1<sup>st</sup> Avenue South as the result of an ongoing conveyance problem.

The Miller Creek Regional Detention Facility backed up as it should have, to handle the event. Lake Reba was engulfed by MCRDF as expected.

Along Maplewild Av SW (just outside of the Miller basin to the west), Steve Clark noticed four newly constructed catch basins that were dry during the storm. The pavement slopes away from instead of into these facilities.

The City of SeaTac stormwater facilities did ok during the storm.

There was some localized flooding along Miller Creek, near the Community Club, but this does not appear to have impacted living spaces of these residences. There were some small slides as well.

#### *Walker Creek*

Contractors for the City of Normandy Park were not able to complete the repairs on the 1<sup>st</sup> Avenue South culvert before the storms. Pipes collapsed, and more damage has occurred. Normandy Park has contacted WSDOT for emergency assistance, and it is hoped that Federal assistance might become available.

There was some localized flooding on Walker Creek, near the Community Club. There were some small slides as well.

#### *Salmon*

A manhole collapsed at the head of Salmon Creek (about 12<sup>th</sup> Ave SW and SW 120<sup>th</sup> St.) and emergency repairs were needed to fill a large sinkhole and replace the manhole.

The broken outfall on the beach by the Salmon mouth appears to have remained flowing, although it looks even more askew than it did before the storm.

It does not look like the bypass splitter overtopped to the stream during last week's storm. Dan Bath looked at it.

Most of the calls that King County received related to street and road flooding because of blocked storm drains/catch basins.

Curt would like to know what the King County gauging data shows for Miller, Walker, and Salmon Creeks during the storm event (whatever data is available). **Julie will research this.**

#### ***Follow Up Discussion Regarding Reported and Monitored Flow Pulses in Miller and Walker last August (from the Public Meeting Participants)***

King County monitoring gages confirmed the occurrence of two increases in flow in August. Project partners were asked to look at their own maintenance or construction activities to see if they were doing anything that might account for these increased flows. None of the partners had any activities, or were aware of that would account for them.

**Action items are highlighted**

One thought was that this was during the fish window, and that a contractor might have been doing work.

Another thought was that kids or residents near the stream may have been building a make-shift dam or other structure.

During the meeting, it was suggested that the pulses might be the result of Seattle Public Utilities (SPU) or Highline Water District well operations or pipeline flushing.

Steve Clark will check with WD49. Julie Cairn or Bruce Bennett will check with SPU.

### ***Meeting Summary Discussion and Approval***

The October 16 meeting summary was discussed. There were a few corrections/clarifications, and the minutes were approved with those corrections.

### ***Discussion of Most Recent Modeling and Cost Information for Detention Options***

Bruce handed out flow frequency and duration analysis graphs for the three streams. The legends on these graphs have been simplified somewhat – moving toward public presentation format and terminology.

Bruce also handed out a spreadsheet of costs for the Miller and Walker basins. Each spreadsheet has calculated detention volumes, infiltration volumes, and cost information for meeting the various flow targets and flow regulations. The volumes and costs are incremental –

- What volume of detention and/or infiltration and what probable cost does it take to get from current flows to Level 1 flow control (controlling only peaks)?
- What volume of detention and/or infiltration and what probable cost does it take to get from Level 1 flow control to Level 2 flow and duration control using a pre-developed condition of 10% effective impervious (75/15/10)? What are the costs both short- and long-term (20-yr planning horizon and beyond)?
- What volume of detention and/or infiltration and what probable cost does it take to get from the Level 2 (75/15/10) flow line to the Level 2 (forested pre-development condition) flow line?
- What volume of detention and/or infiltration and what probable cost does it take to reach the basin-wide goal of 10% effective impervious area?

Short term, as used in these graphs, reflects development and redevelopment of red parcels in a 20-year planning horizon.

Long term, as used in these graphs, reflects a greater than 20-year planning horizon, and reflects development of red parcels and redevelopment of all commercial properties in the basin – hence the longer planning horizon.

Level 1 detention costs are assumed to be borne by developers.

Action items are highlighted

Level 2 costs could be borne by municipalities or by developers, depending on what projects are selected and how they will be implemented to reduce flows in the basins.

The spreadsheets reflect both the total area to be developed or redeveloped (the area of the red parcels\*) and the total amount of detention or infiltration needed, and its estimated cost. The analysis is not conducted on a parcel-specific basis.

\*Red parcels are those identified as likely to be redeveloped in the next 20 years based on the ratio of improved value to land value, where the improved value is less than the land value.

Level 2 with pre-developed forested conditions is consistent with the new Ecology manual requirements.

Level 2 with predeveloped 75/15/10 conditions is consistent with what Ecology is requiring of the Port of Seattle for Miller and Walker Creeks.

Near-term projects would be those implemented in the 0 – 10 year planning horizon and could include facilities to achieve any desired level of detention, providing funding was available.

**IMPORTANT NOTE** – The graphs are only addressing the flow regime targets for the streams. The flow regime changes will likely occur over an extended period of time. There are other things that can/will happen while the flow regime is being altered over time, such as habitat improvements and water quality improvements.

A question came up – If an RDF were constructed, would the flow regime change so rapidly and dramatically as to harm the stream (e.g., siltation)? We need to check with ecological staff to make sure that this sudden change in flows would not be detrimental to the system.

### ***Miller Creek Flow Frequency Graph and Cost Sheet***

The group identified the following questions as important to address:

1. What is the current status of the creek?
2. What do the current regulatory requirements drive us to, and what does that accomplish?
3. What do we want to achieve and how can we get there?

In Miller, according to the ecologists and geologists, we don't want to let the flow regime get worse. It has equilibrated to a condition, and does not appear to be close to unraveling catastrophically, but the current conditions are not conducive to improved habitat or geological stability. There are things we can do in the system to improve habitat, and improve water quality, but we need to look at reducing flows at the same time to get the most benefit out of habitat or geological improvements. Placing gravel or LWD would not be as useful if they all get scoured downstream by the current flows. Best Available Science tells us we need to improve the flow regime. Best Available Science does not tell us the exact target flow, although there are indications that achieving the 75/15/10 flow in the basin is a good target, and we know that any movement toward that target is good. It

Action items are highlighted



may not be enough, and we don't know for sure, but it's really the best we can do at this time.

Is the 75/15/10 line the appropriate GOAL?

Should the GOAL be the Forested line? This is an urbanized basin though, so this is likely to be totally unrealistic.

If we don't outline a way to meet the GOAL flow, is it an inappropriate GOAL?

After further discussion about the graphs and the cost spreadsheet, the PMT agreed that the basin-wide flow goal representing a 10% impervious basin is appropriate for the Miller Creek Basin. This is the line shown as GOAL on the graphs.

The PMT further agreed that the appropriate regulatory flow control detention standard for Miller Creek is Level 2 with a pre-development condition of 75/15/10.

### ***Walker Creek Flow Frequency Graph and Cost Sheet***

The group discussed whether the basin wide flow goal representing a 10% impervious basin is appropriate for the Walker Creek Basin. This is the line shown as GOAL on the graphs.

How would we get the additional storage in the Walker system if more storage is deemed necessary? The majority of the basin is single-family residential.

The Walker Creek system is the best of the three, and it is in pretty good shape. Do we need to spend resources here, or should spend them elsewhere? At the same time, because it is the best of the three, we need to make sure we protect it and not let it degrade.

Protection of the headwater wetlands may be the most critical way to protect the Walker system. This might include purchasing available property. There are other wetlands as well in the Walker system that should be looked at for appropriate classification and protection.

In order to address citizen criticism about presuming the third runway is built, we should expand the modeling runs for Walker that presume the 3<sup>rd</sup> runway is NOT built, so that we can determine how much storage would be required in the basins under various flow control standards. This will allow cost calculations to be made for these scenarios.

If we recommend a basin-wide flow goal that we may not be able to get to, is that inappropriate?

The PMT **did not** come to decisions on the basin-wide flow goal or the recommended flow control standard for the Walker Creek system.

### ***Salmon Creek Recommended Flow Goal and Detention Standards***

Based on earlier data reviews and discussions, the PMT confirmed at this meeting that the basin wide flow goal representing a 10% impervious basin is appropriate for the Salmon Creek Basin.

Action items are highlighted

The PMT further agreed that the appropriate regulatory flow control detention standard for Salmon Creek is Level 1. This flow control standard can be implemented to meet the basin wide flow goal, because of the existence of the bypass line.

The maintenance and upkeep of the bypass line are critical to this recommendation. Additional basin plan recommendations for the Salmon basin will focus on addressing habitat and water quality issues, which are significant.

### ***Discussion of Project Schedule and Scope of Next Round of Public Meetings***

The PMT expressed some concerns about the current schedule. Will we be ready for a public meeting in December? Have we made enough progress in determining goals and prioritizing solutions to go back to the public in roughly one month? The PMT will continue to work on the project and make a decision in the near future about scheduling a future set of public meetings.

### ***Upcoming Meetings***

11/6 PMT (9AM – Noon in City Manager’s Conference Room)

11/13 PMT (9AM – Noon **in City Council Chambers**)

11/20 Executive / PMT (9AM – Noon in City Manager’s Conference Room)

11/27 HOLIDAY

12/4 PMT (9AM – Noon in City Manager’s Conference Room)

**and** Salmon Public Meeting (tentative) Shorewood School location reserved

12/11 Miller and Walker Public Meeting (tentative) CJTC

**(POST MEETING NOTE – BOTH PUBLIC MEETING LOCATIONS AND DATES ARE NOW RESERVED.)**

### ***Related Attachments***

10/16/03 Approved Summary



"101603 PMT  
Meeting Summary.do

Action items are highlighted